AMENDMENT

IN THE CLAIMS:

Please amend the claims as follows:

1. (original) A process of manufacturing a liquid crystal display device of transverse electric-field type including (a) a pair of substrates at least one of which is transparent, (b) a layer of a liquid crystal composition interposed between the pair of substrates, (c) a plurality of scanning lines driven by an external scanning-line driver circuit through scanning-line terminal portions and extending in a line direction, (d) a plurality of image-signal wires extending in a column direction, (e) picture-element electrodes corresponding to respective picture elements, (f) common electrodes cooperating with said picture-element electrodes, and (g) thin-film transistor elements connected to said scanning lines and said image-signal wires, and wherein said scanning lines, said image-signal wires, said picture-element electrodes, said common electrodes and said thin-film transistor elements are provided on a surface of one of said pair of substrates which faces said layer of the liquid crystal composition, said process comprising:

a halftone exposing step of exposing a photoresist on said one of said pair of substrates to a radiation, and thereby forming (i) first positive resist portions that cover portions of a semiconductor layer formed on said one substrate, which portions

correspond to said thin-film transistor elements, each of said first positive resist portions having a predetermined first thickness, (ii) resist-free areas that cover portions of said semiconductor layer which correspond to a first connecting portion, a second connecting portion and a third connecting portion, said first connecting portion being provided to form first static-electricity protective transistor elements connecting said common electrodes and said scanning lines, said second connecting portion being provided to form second static-electricity protective transistor elements connecting said common electrodes and said image-signal wires, and said third connecting portion connecting said external scanning-line driver circuit and said scanning-line terminal portions, and (iii) second positive resist portions having a second thickness smaller than said first thickness and covering the other portions of said semiconductor layer.

2. (original) The process according to claim 1, wherein said halftone exposing step is implemented by using a halftone photomask having a fully light-transmitting area, a semi-light-transmitting area and a fully light-shielding area, such that said first positive resist portions having said first thickness are formed with said fully light-shielding area of said halftone photomask preventing said radiation from exposing the portions of the semiconductor layer which correspond to said thin-film transistor elements, and said resist-free areas are formed with said fully light-transmitting area of said halftone photomask permitting said

radiation to expose the portions of the semiconductor layer which correspond to the first, second and third connecting portions of said semiconductor layer, while said second positive resist portions having said second thickness are formed with said semi-light-transmitting area of said halftone photomask permitting partial exposure of said other portions of said semiconductor layer to said radiation.

3. (original) A process according to claim 1, wherein said halftone exposing step is implemented by using a photomask having a fully light-transmitting area and a fully light-shielding area, while said photoresist on said semiconductor layer is exposed through said photomask to a ultraviolet radiation whose irradiation energy density is determined so as to remove only a portion of a thickness of said photoresist, said halftone exposing step being implemented such that said first positive resist portions having said first thickness are formed with said fully light-shielding area of said photomask preventing said ultraviolet radiation from exposing said portions of the semiconductor layer which correspond to said thin-film transistor elements, while said second positive resist portions having said second thickness are formed with said fully light-transmitting area of said photomask permitting said ultraviolet radiation to expose said other portions of the semiconductor layer, and wherein said halftone exposing step further includes an operation performed after said first and second positive resist portions are formed, to form said resist-free areas

by exposing portions of said photoresist exposed to said ultraviolet radiation, which portions cover the portions of the semiconductor layer corresponding to said first, second and third connecting portions, such that said portions of the photoresist are exposed to a radiation through another photomask different from said photomask used to form said first and second positive resist portions, or to respective spot lights of a condensed ultraviolet radiation.

4. (original) A process according to claim 1, wherein said halftone exposing step is implemented by using a photomask having a fully light-transmitting area and a fully light-shielding area, while said photoresist on said semiconductor layer is exposed through said photomask to a ultraviolet radiation whose irradiation energy density is determined so as to remove only a portion of a thickness of said photoresist, said halftone exposing step being implemented such that said first positive resist portions having said first thickness are formed with said fully light-shielding area of said photomask preventing said ultraviolet radiation from exposing said portions of the semiconductor layer which correspond to said thin-film transistor elements, and said second positive resist portions having said second thickness are formed with said fully light-transmitting area of said photomask permitting said ultraviolet radiation to expose said other portions of the semiconductor layer, while at the same time said resist-free areas are formed by exposing portions of said photoresist covering the

portions of the semiconductor layer corresponding to said first, second and third connecting portions, to respective spot lights of a condensed ultraviolet radiation.

5. (canceled)

6. (canceled)

7. (canceled)

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16. (original) A process of manufacturing a liquid crystal display device of transverse electric-field type including (a) a pair of substrates at least one of which is transparent, (b) a layer of a liquid crystal composition interposed between the pair of substrates, (c) a plurality of scanning lines driven by an external scanning-line driver circuit through scanning-line terminal portions and extending in a line direction, (d) a plurality of image-signal wires extending in a column direction, (e) picture-element electrodes corresponding to respective picture elements, (f) common electrodes cooperating with said picture-element electrodes, and (g) thin-film transistor elements connected

to said scanning lines and said image-signal wires, and wherein said scanning lines, said image-signal wires, said picture-element electrodes, said common electrodes and said thin-film transistor elements are provided on a surface of one of said pair of substrates which faces said layer of the liquid crystal composition, said process comprising:

a first photomasking step of forming a positive resist that covers portions of a semiconductor layer formed on said one substrate, which portions correspond to gate electrodes of said thin-film transistor elements and said common electrodes;

a second photomasking step of forming a positive resist that covers portions of said semiconductor layer which correspond to said thin-film semiconductor elements, and forming resist-free areas that cover portions of said semiconductor layer which correspond to a first connecting portion, a second connecting portion and a third connecting portion, said first connecting portion being provided to form first static-electricity protective transistor elements connecting said common electrodes and said scanning lines, said second connecting portion being provided to form second static-electricity protective transistor elements connecting said common electrodes and said image-signal wires, and said third connecting portion connecting said external scanning-line driver circuit and said scanning line terminal portions;

a third photomasking step of forming a positive resist that covers portions of said semiconductor layer which correspond to source electrodes and drain electrodes of said thin-film transistor elements, and said picture-elements electrodes; and

a fourth photomasking step of forming a positive resist for forming contact holes of said scanning-line terminal portions and contact holes of image-signal wire terminal portions.

17. (original) A process of manufacturing a liquid crystal display device of transverse electric-field type including (a) a pair of substrates at least one of which is transparent, (b) a layer of a liquid crystal composition interposed between the pair of substrates, (c) a plurality of scanning lines driven by an external scanning-line driver circuit through scanning-line terminal portions and extending in a line direction, (d) a plurality of image-signal wires extending in a column direction, (e) picture-element electrodes corresponding to respective picture elements, (f) common electrodes cooperating with said picture-element electrodes, and (g) thin-film transistor elements connected to said scanning lines and said image-signal wires, and wherein said scanning lines, said image-signal wires, said picture-element electrodes, said common electrodes and said thin-film transistor elements are provided on a surface of one of said pair of

substrates which faces said layer of the liquid crystal composition, said process comprising:

a first photomasking step of forming a positive resist that covers portions of a semiconductor layer formed on said one substrate, which portions correspond to gate electrodes of said thin-film transistor elements and said common electrodes;

a second photomasking step of forming a positive resist that covers portions of said semiconductor layer which correspond to said thin-film semiconductor elements, and forming resist-free areas that cover portions of said semiconductor layer which correspond to a first connecting portion, a second connecting portion and a third connecting portion, said first connecting portion being provided to form first static-electricity protective transistor elements connecting said common electrodes and said scanning lines, said second connecting portion being provided to form second static-electricity protective transistor elements connecting said common electrodes and said image-signal wires, and said third connecting portion connecting said external scanning-line driver circuit and said scanning line terminal portions;

a third photomasking step of forming a positive resist that covers portions of said semiconductor layer which correspond to source electrodes and drain electrodes of said thin-film transistor elements, and said picture-elements electrodes; and

a passivation step of subjecting a back channel portion of each of said thin-film transistor elements to a plasma doping treatment with a B_2H_6 gas, and coating said back channel portion with a layer formed of one of BCB, polyphenyl silazane and an organic material by ink-jet coating or flexo graphic printing method.